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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
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ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/720,358	LI ET AL.	
	Examiner	Art Unit	
	Kuen S. Lu	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Action is responsive to Applicant's Application, filed November 24, 2003. Claims 1-17 are pending.

Drawings

2. Drawings filed November 24, 2003 have been accepted.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bushe et al. (U.S. Patent 6,978,422, hereafter "Bushe") in view of Dean et al. (U.S. Patent Application, 2004/0098294).

. As per claim 1, Bushe teaches "A meta-data driven resource management system" (See Fig. 3 and col. 14, lines 5-16 where resource management system is driven by dictionary views) comprising:

"a resource" ... "comprising a plurality of resource records corresponding to multiple different types of resources" (See Figs. 1, 3 and col. 10, lines 4-8 and 32-35 and col. 14, lines 17-29 where data storage and data dictionary are provided for resource

management system having master view definition comprising records of group, task, object and menu definitions).

Bushe does not explicitly teach that the resource is a non-specific database, although Bushe teaches XML documents to store data at col. 5, lines 24-31.

However, Dean teaches resources are related in relationship type tables in a relational database (See [0033] and [0036]).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention was made to combine Dean's teaching on implementing resource management model on relationship table and relational database with Bushe reference because both references are directed to resource management application and the combined teaching of the references would have enabled Bushe's system to more dynamically create, change and remove resource tasks, resources and views without the need of modifying core portion of resource management application since the relational database model adopted in Dean reference is more responsive and adaptive to changes in the nature and diversity of resources (See Bushe: col. 9, lines 3-9 and Dean: [0003], last paragraph).

Bushe further teaches the following:

"a metadata manager programmed to define records within said database according to resource name and resource attributes for different resource types specified within metadata definitions of said different resource types" (See Figs. 3-4, col. 15, lines 14-48 and col. 16, lines 26-33 where definitions of tasks, views, objects, styles, menus, etc., are defined in the master definition in the data dictionary and within each definition,

different resource types are specified based on resource definition names and attributes, such as object, task); and,

"a resource manager coupled to said metadata manager and said database, said resource manager comprising a configuration for creating, locating and reserving resource instances based upon resource types stored in said database and defined within a corresponding metadata definition" (See col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type and created based on view definition, and the view further takes the type of managed object data, reserving instance, and applies the management function to produce managed object data).

As per claim 7, Bushe teaches "A metadata driven resource management method" (See Fig. 3 and col. 14, lines 5-16 where resource management system is driven by dictionary views) comprising the steps of:

"processing individual metadata documents to identify respective resource names and corresponding resource attributes specified within said individual metadata documents" (See col. 5, lines 24-31 where XML document defines task, managed object and view definitions and col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type); and

"creating new resource instances to be managed based upon said respective resource names and said corresponding resource attributes identified within said individual metadata documents"(See col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is created based on view definition, and the view further takes the type of managed

object data, reserving instance, and applies the management function to produce managed object data).

Bushe does not explicitly teach "persisting said new resource instances in a resource non-specific database".

However, Dean teaches resource management embodiment on relational and object-oriented databases which persist resource instances in the databases.

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention was made to combine Dean's teaching on implementing resource management model on relationship table and relational database with Bushe reference because both references are directed to resource management application and the combined teaching of the references would have enabled Bushe's system to more dynamically create, change and remove resource tasks, resources and views without the need of modifying core portion of resource management application since the relational database model adopted in Dean reference is more responsive and adaptive to changes in the nature and diversity of resources (See Bushe: col. 9, lines 3-9 and Dean: [0003], last paragraph).

Bushe further teaches "locating and managing individual ones of said new resource instances based upon said individual metadata documents" (See col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type and created based on view definition, and the view further takes the type of managed object data, reserving instance, and applies the management function to produce managed object data).

As per claim 10, Bushe teaches "A metadata driven resource management method" (See Fig. 3 and col. 14, lines 5-16 where resource management system is driven by dictionary views) comprising the step of

"adding a new manageable resource instance of a new manageable resource type" to a dictionary "containing a set of manageable resource instances created from corresponding pre-existing manageable resource types which differ from the new resource type" (See col. 5, lines 6-15 and 55-62 where new resources are introduced to a system environment and resource management application incorporate additional or newly defined views to be applied and the managed object in the dictionary is selected to define managed object data).

Bushe does not explicitly teach the resource instance is added to a resource non-specific database.

However, Dean teaches resources are related in relationship type tables in a relational database (See [0033] and [0036]).

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention was made to combine Dean's teaching on implementing resource management model on relationship table and relational database with Bushe reference because both references are directed to resource management application and the combined teaching of the references would have enabled Bushe's system to more dynamically create, change and remove resource tasks, resources and views without the need of modifying core portion of resource management application since the

relational database model adopted in Dean reference is more responsive and adaptive to changes in the nature and diversity of resources (See Bushe: col. 9, lines 3-9 and Dean: [0003], last paragraph).

The combined teaching of the Bushe and Dean references further teaches the following steps:

"defining the new manageable resource type in a markup language document with a specified resource name and at least one specified resource attribute" (See Bushe: col. 6, lines 50-64 where XML document is parsed to define definitions of tasks and types of manageable resource); and

"generating a user interface (UI) for creating and managing the new manageable resource instance based upon said at least one specified resource attribute in said markup language document" (See Bushe: col. 6, lines 61-64 where a flexible framework for declarative software graphical user interfaces for use in resource management applications is provided); and,

"writing the new manageable resource instance to the database" (See Bushe: col. 11, lines 33-40 where object data is received and stored to the management server, and Dean: resources are related in relationship type tables in a relational database (See [0033] and [0036]).).

As per claim 15, Bushe teaches "A machine readable storage having stored thereon a computer program for metadata driven resource management, the computer program comprising a routine set of instructions" (See Fig. 3 and col. 14, lines 5-16 where

resource management system is driven by dictionary views) which when executed by the machine cause the machine to perform the steps of:

"processing individual metadata documents to identify respective resource names and corresponding resource attributes specified within said individual metadata documents" (See col. 5, lines 24-31 where XML document defines task, managed object and view definitions and col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type); and

"creating new resource instances to be managed based upon said respective resource names and said corresponding resource attributes identified within said individual metadata documents" (See col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is created based on view definition, and the view further takes the type of managed object data, reserving instance, and applies the management function to produce managed object data).

Bushe does not explicitly teach "persisting said new resource instances in a resource non-specific database".

However, Dean teaches resource management embodiment on relational and object-oriented databases which persist resource instances in the databases.

It would have been obvious to one having ordinary skill in the art at the time of the Applicant's invention was made to combine Dean's teaching on implementing resource management model on relationship table and relational database with Bushe reference because both references are directed to resource management application and the combined teaching of the references would have enabled Bushe's system to more

dynamically create, change and remove resource tasks, resources and views without the need of modifying core portion of resource management application since the relational database model adopted in Dean reference is more responsive and adaptive to changes in the nature and diversity of resources (See Bushe: col. 9, lines 3-9 and Dean: [0003], last paragraph).

Bushe further teaches "locating and managing individual ones of said new resource instances based upon said individual metadata documents" (See col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type and created based on view definition, and the view further takes the type of managed object data, reserving instance, and applies the management function to produce managed object data).

As per claim 2, Bushe further teaches "a user interface (UI) generation component coupled to said resource manager and configured to generate a UI for said creating, locating and reserving of said resource instances based upon said resource attributes specified within corresponding ones of said metadata definitions of said different resource types" (See col. 6, lines 61-64 where a flexible framework for declarative software graphical user interfaces for use in resource management applications is provided, and further at col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type and created based on view definition, and the view further takes the type of managed object data, reserving instance, and applies the management function to produce managed object data).

As per claim 3, Bushe further teaches "each of said metadata definitions further specify a resource containment hierarchy" (See col. 5, lines 24-31 where a dictionary is a document object model based on parsed XML document which is a hierarchical structured data containment).

As per claim 4, Bushe further teaches "an access control manager coupled to said resource manager and configured to limit access to individual ones of said resource instances based upon a specification of a resource containment hierarchy within a corresponding one of said metadata definitions" (See col. 2, lines 20-36 where a set of functions are operated in order to access the required resource data, and at col. 5, lines 24-31 where a dictionary is a document object model based on parsed XML document which is a hierarchical structured data containment).

As per claim 5, Bushe further teaches "metadata manager and resource manager are disposed within a collaborative computing application" (See col. 2, lines 60-63 where populated XML data structure with data is transported and interpreted by other users of software applications).

As per claim 6, Examiner takes official notice that a "collaborative computing application comprises a learning management system programmed to manage learning resources comprising classrooms and instructors" is well known to an ordinary skilled in

the art, for example, In a college environment, course scheduling system assigns Professor Smith to teach Programming 101 at Classroom 3B2 by conducting discussion session to a group of 30 registered students.

As per claims 8 and 16, Bushe further teaches "generating individual user interface (UI) screens for managing selected resource instances based upon corresponding resource attributes specified within individual metadata documents used to create said selected resource instances" (See col. 6, lines 61-64 where a flexible framework for declarative software graphical user interfaces for use in resource management applications is provided, and at col. 5, lines 24-31 where XML documents are to store data structure and data, and further at col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type and created based on view definition, and the view further takes the type of managed object data, reserving instance, and applies the management function to produce managed object data).

As per claims 9 and 17, Bushe further teaches "limiting access to said new resource instances based upon a specification of a resource containment hierarchy within each of said metadata documents" (See col. 2, lines 20-36 where a set of functions are operated in order to access the required resource data, and at col. 5, lines 24-31 where a dictionary is a document object model based on parsed XML document which is a hierarchical structured data containment).

As per claim 11, Bushe further teaches "locating and managing the new manageable resource instance in the database through said UI" (See col. 6, lines 61-64 where a flexible framework for declarative software graphical user interfaces for use in resource management applications is provided).

As per claim 12, Bushe further teaches "reserving the new manageable resource instance through said UI" (See col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type and created based on view definition, and the view further takes the type of managed object data, reserving instance, and applies the management function to produce managed object data, and further at col. 6, lines 61-64 where a flexible framework for declarative software graphical user interfaces for use in resource management applications is provided).

As per claim 13, Bushe further teaches "defining the new manageable resource type in a markup language document with a specified resource name, at least one specified resource attribute and a containment hierarchy" (See col. 5, lines 24-31 where a dictionary is a document object model based on parsed XML document which is a hierarchical structured data containment, and at col. 5, lines 24-31 where XML document defines task, managed object and view definitions and col. 15, lines 49-62 and col. 16, lines 9-11 and 26-33 where view is identified by view type).

As per claim 14, Bushe further teaches "limiting access to the new manageable resource instance based upon an access control list" (See col. 2, lines 20-36 where a set of functions are operated in order to access the required resource data).

Conclusions

5. The prior art made of record

A. U.S. Patent Application 2004/0098294

B. U.S. Patent 6,978,422

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

C. U.S. Patent Application 2001/0042139

D. U.S. Patent Application 2004/0133413

E. U.S. Patent Application 2003/0145074

Contact information

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is (571) 272-4114. The examiner can normally be reached on Monday-Friday (8:00 am-5:00 pm). If attempts to reach the examiner by telephone pre unsuccessful, the examiner's Supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll-free).

Kuen S. Lu

Patent Examiner

May 24, 2006

JOHN R. COTTINGHAM
PRIMARY EXAMINER